Integrales inmediatas

Resolver las siguientes integrales inmediatas de forma directa o realizando solo operaciones algebraícas para convertirla en una integral directa:

1. $\int x^3 dx$
2. $\int (w-2)dw$
3. $\int \frac{4d\theta}{1+\theta^2}$
4. $\int e dt$
5. $\int \ln(z)dx$
6. $\int \frac{5}{x^{-3}}dx$
7. $\int (x+2x^2)dx$
8. $\int \frac{dt}{e^{-t}}$
9. $\int \frac{x^2-5x+6}{x-3}dx$
10. $\int 5z dz$
11. $\int \cos(\pi/2)d\theta$
12. $\int \sec^2(\theta)d\theta$
13. $\int e^{x^2} y dy$
14. $\int \csc^2(\theta)d\theta$
15. $\int e^x dz$
16. $\int e^z dz$
17. $\int \frac{2dt}{1+t^2}$
18. $\int \frac{t^2 dt}{1+t^2}$
19. $\int \frac{5v^2 dv}{1+v^2}$
20. $\int \cos(\pi x)dx$
21. $\int -\operatorname{sen}(x)dx$
22. $\int 5\cos(x)dx$
23. $\int (x^5+1)dx$
24. $\int (x+a)^2 dx$
25. $\int (\sec^2(\theta)-1)d\theta$
26. $\int \csc(w)\cot(w)dw$
27. $\int \frac{\operatorname{sen}(\theta)}{\cos^2(\theta)}d\theta$
28. $\int a da$
29. $\int kx dx$
30. $\int \phi^{-1} d\phi$

Cambio de variable

Resuelva las siguientes integrales usando las reglas básicas de integración y/o cambio de variable

1. $\int \frac{dx}{x+1}$
2. $\int \frac{2dz}{z-3}$
3. $\int \frac{adu}{u+b}$
4. $\int \frac{xdx}{x+1}$
5. $\int \frac{3udu}{u-5}$
6. $\int e^{at+b}dt$
7. $\int \frac{\cos\theta}{\text{sen}^7\,\theta}d\theta$
8. $\int \frac{dx}{1+e^{-x}}$
9. $\int \frac{(a+\ln t)}{t}dt$
10. $\int \left(1-\frac{1}{x}\right)^3 \frac{dx}{x^2}$
11. $\int \frac{\arctan(\theta)d\theta}{1+\theta^2}$
12. $\int \frac{du}{u(1-\ln(u))}$
13. $\int \frac{\sec^2(\theta)d\theta}{e^{\tan(\theta)}}$
14. $\int \frac{\text{sen}(e^{-t})dt}{e^t}$
15. $\int \left(\text{sen}\left(\frac{1}{x}\right)\right)^2 \frac{dx}{x^2}$
16. $\int [\text{sen}(3x-1)][\cos(3x-1)]dx$
17. $\int \ln^2(\cos(x))\tan(x)dx$
18. $\int \frac{\ln(\ln(u))du}{u\ln(u)}$
19. $\int e^{x+e^x}dx$
20. $\int \frac{e^x-e^{-x}}{e^x+e^{-x}}dx$
21. $\int e^{\tan(\theta)}\sec^2(\theta)d\theta$
22. $\int \frac{-\text{sen}(\theta)}{\cos^6(\theta)}d\theta$
23. $\int \sec^2(u^2+1)2udu$
24. $\int 5\,\text{sen}(5x)dx$
25. $\int 2u(u^2+1)^{3/2}du$
26. $\int \cos^5(\theta)(-\text{sen}(\theta))d\theta$
27. $\int 2ue^{u^2}du$
28. $\int 5\tan(5x)dx$
29. $\int \cos(x)e^{\text{sen}(x)}dx$
30. $\int ue^{-u^2}du$
31. $\int \frac{e^x dx}{e^{2x}+2e^x+1}$
32. $\int \frac{xdx}{\sqrt{1-x^2}}$
33. $\int \theta\sqrt{1-\theta^2}d\theta$

34. $\int \frac{\operatorname{sen}(\sqrt{x+3})}{\sqrt{x+3}} dx$

35. $\int \frac{\cos^3(\theta) d\theta}{1-\operatorname{sen}(\theta)}$

36. $\int \frac{1-\cos(2\theta)}{1+\cos(2\theta)} d\theta$

37. $\int \frac{(2x+1)dx}{x^2+x+1}$

38. $\int \frac{xdx}{(x^2+1)^5}$

39. $\int \frac{dx}{a+bx}$

40. $\int (a+bx)^n dx; n \neq -1$

41. $\int \frac{x^{n-1}}{a+bx^n} dx$

42. $\int \operatorname{sen}(ax+b)dx$

43. $\int x \operatorname{sen}(x^2+1)dx$

44. $\int \frac{dx}{x(\ln x)^n}; n \neq -1$

45. $\int \frac{f'(x)}{f(x)} dx$